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Reading and Writing Connections: Scaffolding Students' Learning and Use of an Organizing Strategy for Understanding Text

Lynne Ticke, Department of Social Sciences, Bronx Community College of the City University of New York
Contact: Lynne.Ticke@bcc.cuny.edu

Abstract
Research shows that successful students are actively engaged in the learning process and have access to a repertoire of learning strategies that they can apply to different learning contexts. Yet many incoming college students arrive academically underprepared for the demands they will face in college. Fortunately, research has also shown that students can benefit from strategy instruction and can learn to become strategic learners. This case study of an introductory psychology course presents a set of instructional practices to foster students' use of an organizing strategy and to help promote students' reading of course content. The impact on students' performance in the class as well as the pedagogical benefits of using the organizing strategy are discussed.

Keywords: Reading and Writing Connections, Strategic Learning, College Students

Introduction
Research shows that successful students are actively engaged in the learning process. They have access to a repertoire of learning strategies (e.g., summarizing, transforming, and organizing information) and they employ such strategies in purposeful and flexible ways (Loranger, 1994; Nist & Simpson, 2000; Weinstein, 1994; Zimmerman, 1994, among others). Many college instructors may make the assumption that students arrive in their classrooms with a repertoire of effective strategies and therefore may spend little or no time directly teaching or modeling such strategies. Yet research has shown that many incoming college students arrive academically underprepared for the demands they will face in the college classroom, including their use of learning and study strategies (e.g., Byrd & MacDonald, 2005; Mayer 1996; McCabe, 2000; Simpson & Nist, 2000). Community college students, in particular, may find the transition to college life further complicated by the need to juggle their academic lives with the added responsibilities of work and family.

To address these challenges, many colleges offer specialized courses that are designed to specifically teach learning strategies such as 'Learning to Learn' classes and other special programs such as developmental courses in reading, writing, English, and mathematics. Colleges also may offer discipline-specific peer tutoring. Research shows that students who complete these programs succeed at higher rates and persist longer than students who do not complete the program (Cukras, 2006; Hennessey, 1990). I would argue that faculty from across the disciplines can also assist students in becoming strategic learners by spending instructional time introducing, modeling, and scaffolding learning strategies and by providing students with opportunities to practice using strategies to better understand course readings.

Research supports the need to teach students learning strategies to promote their active engagement with tasks and texts. For example, Nist and Simpson (2000) recommend that students receive quality learning strategy instruction and that we teach students research- validated strategies such as text summarization, student elaboration, and organizing strategies. They also emphasize the importance of students' cognitive and metacognitive processes such as selecting and transforming ideas and organizing, elaborating, monitoring, planning, and evaluating. Research recommends that students develop a 'tool kit' filled with a variety of strategies that they can use flexibly, depending on such contextual factors as their own learning goals, prior knowledge, and task demands (Bean, 1996; Simpson & Nist, 2000).

The Interconnections Between Reading and Writing
Research in the areas of literacy learning and pedagogy can also inform these challenges. Investigators have examined the relationships between reading and writing and the role writing can play in understanding complex texts. Programs such as Writing Across the Curriculum (WAC) and Writing Across

the Disciplines (WID) emphasize the importance of using informal or exploratory writing as tool in the promotion of thinking and learning (Bean, 1996; Emig, 1977; Fulwiler & Young, 1982, among others). Researchers working within this tradition have examined how informal or exploratory writing activities or assignments can foster students' reading of difficult texts. For example, Bean (1996) discusses some of the reasons why college students, especially incoming freshmen, may find it challenging to navigate their college texts. He cites such challenges as students' failure to adjust reading strategies for different purposes and to the varieties of academic discourse. Additionally, Bean offers helpful instructional practices that can create learning environments that help students' become better readers. Many of his suggestions involve ways that writing can be used to facilitate this goal. For example, he suggests that modeling one's own note-taking strategies can help students to become more active and thoughtful readers. This type of modeling can promote students' strategic processing as well as reflection on their own learning processes.

In this paper I describe a set of informal writing activities I used in my introductory psychology course to foster students' active engagement with the course reading materials. My instructional goals were twofold: 1) to introduce students to an organizing strategy to assist them in understanding course reading material, specifically the textbook, and 2) to help students use the strategy as a tool in the service of learning and studying the course content.

Method

The College Context

This study took place at a community college that is part of a large urban public university system. The student population is diverse at the college with approximately 66% female, 50% Latino, and 37% African American; approximately 46% of the students were born outside of the United States. At the time of this study, 11% of the students were first-time freshmen and 23% had earned a General Equivalent Diploma (G.E.D).

Classroom Context

The majority of the students in the introductory psychology course are freshman and new to the academic demands of college life. Thirty-four students were enrolled in the course in the beginning of the semester. There are no prerequisites for the course; however, a second level developmental English course or a second level developmental reading course are co-requisites, if required, based on the student's performance on a college entrance exam. The introductory psychology course is a general survey course that covers a wide range of content, including the major theoretical perspectives in the field, research methodologies, psychological disorders, and therapies. The main textbook for the course was Myers (1999). *Exploring Psychology*. At the college where this study took place, all psychology faculty use the same textbook, we work from a common curriculum, and we have a cumulative, departmental final exam. Two chapters from the textbook were used for this study: Chapter 12, 'Psychological Disorders' and Chapter 13, 'Therapy.'

The Classroom Activity

Modeling a Learning Strategy for Organizing Text

In the chapter on psychological disorders, Myers (1999) presents five general diagnostic categories (i.e., anxiety disorders, mood disorders, dissociative disorders, schizophrenia, and personality disorders) and a description of the different types of specific disorders that are examples of each of the general categories. For example, generalized anxiety disorders, phobia, and obsessive-compulsive disorder are discussed as specific examples that are organized within the general diagnostic category of an anxiety disorder. It should be noted that the specific content in this chapter is hierarchical in worked well with the specific organizing strategy I introduced to the students.

During a segment of one class session I introduced the concept of a synthesis chart and how it could be useful for organizing information presented in the textbook. (See Appendix A for the synthesis chart.) I then modeled the development of the chart by introducing the general structure. Students were assigned the relevant reading for homework and the synthesis chart and completed the chart after reading the required pages. In the subsequent class session we discussed each disorder and students used their completed charts to contribute to the class discussion. Students' feedback on the chart was

positive. During this initial introduction of the chart there seemed to be high student engagement as indicated by a majority of the students participating in class discussion.

Collaborative Learning Activity: An Application of Concepts

To assist students in the application of their knowledge of the psychological disorders presented in the textbook, I distributed a set of clinical cases in the subsequent class session. (See Appendix B for a sample of clinical cases.) I assigned students to work in small groups to read each case and to arrive collectively at a diagnosis. During their small group work, students referred to their synthesis charts to help them complete the task. They were also free to access their class notes and the relevant chapter in the textbook. Students were engaged in their group activities. There were high levels of discussion as students discussed the cases and their thinking about the diagnoses. The majority of the students accurately diagnosed the cases. During the whole group share, when there was a question about a specific case, students discussed how they arrived at a specific diagnosis and justified their thinking with the information provided in the case and in their notes.

Transfer of Learning to New Content

To help students transfer the use of this learning strategy to new content, I asked students to create their own synthesis charts for the material presented in the subsequent chapter on therapies. The chapter presented four major psychological therapies (i.e., psychoanalysis, humanistic, behavioral, and cognitive) and the basic assumptions, aims, and treatment techniques of each. In class I made suggestions for possible headings for the columns (e.g., Therapeutic Approach, Goals, and Treatment Techniques) and encouraged students to come up with their own headings. Students completed the selected reading and the synthesis charts for homework and brought their charts to the following class discussion.

Results

Student Feedback on the Use of the Synthesis Chart

Towards the end of the semester, 15 students were available to complete a questionnaire on the use of the synthesis chart. (See Appendix C for the questionnaire.) Overall, students responded positively to the use of the synthesis chart. Most of the students stated that the synthesis chart was helpful for organizing reading material and helped to simply the information. Some students also commented that they used the chart as a study guide to review for the upcoming exam. The following is a sample of students' responses:

> 'It makes it quite easy to condense large amounts of information and understanding the main concepts/ideas are made simpler.'
>
> 'Synthesis chart was helpful because the information and/or details is at your fingertips.'
>
> 'I have found the chart so helpful in my learning because it's a more effective way than the others strategies that I had. In other words is clearer to understand it.'
>
> 'It has been helpful in keeping material organized and the information was much easier to find because of the chart.'
>
> 'I use the chart to keep a lot of information in order and it was also helpful as a review because I had all the information at once and didn't have to try and remember what it was related to.'

Students' Previous Experience Using an Organizing Strategy

The majority (66%) of the students reported that they had no previous experience using an organizing chart as a strategy for learning course material. This was not surprising given that the research shows that many students enter college underprepared for the academic demands of the classroom. Only five (33%) students reported having previous experience using this type of strategy. Two of these students reported using charts in courses designed to specifically teach learning strategies (i.e., a Learning to Learn course and a developmental reading course).

Transfer of the Learning Strategy to Other Courses

Despite the fact that the majority of the students reported that they found the strategy helpful for learning the course material, the majority (73%) also reported that they did not use the strategy in their other courses. This finding suggests that students, particularly those who are novices with regard to the academic demands of college life, may not automatically or spontaneously transfer a learning strategy they find useful in one course to another course. Students may require considerable training and practice using such learning tools before they are able to have 'control' over their use and to be able to use a learning strategy strategically. There is research that supports this idea. For example, Nist and Simpson (1990) found that with deliberate instruction students' metacognition gradually improved over time, but distinct and significant improvement did not emerge until four weeks after the initial instruction. Additionally, it should be stated that not all strategies are useful for all students in all learning contexts (Simpson & Nist, 2000).

Students' Perceptions of Future Use

The majority (80%) of the students reported that they were either ***extremely likely*** or ***very likely*** to use a synthesis chart in future semester. The following is a sample of students' responses:

> 'Since it has been very helpful, I think I will stick to it not only for fall semester but rest of my college career.'
>
> 'Summarizing large amount of information provides clarity for reviewing and studying.'
>
> 'Using the chart would save me time to study and would make it easy to look up for information.'
>
> 'It's a good way of getting organized and using the details for proper clarification.'
>
> 'I will keep using this technique because I have found that since I have been using it, I have kept up with my average. Thanks for teaching me such a good technique.'
>
> 'I am planning to use this chart for my next courses because it had helped a lot.'

The remaining three students (20%) were less certain about whether they would use this strategy in the future. Two students indicated that they were ***not very likely*** to use the chart in the future. One student explained:

> 'I will not use the chart because I read the required text and take notes on my own so that I can fully understand the topic being discussed.'

The third student whom I will refer to as Student A, indicated that she was ***somewhat likely*** to use the chart:

> 'As helpful as this method may be it can also take time to have the chart organized appropriately, it would depend on how much time I had and if just reading the book was enough, I would just read the book.'

Both of these students' comments reveal a sense of themselves as strategic learners who selectively use a learning strategy based on the learning and life contexts. I was curious to learn more about the 'accuracy' of their self-knowledge. For example, research has found that less successful learners are sometimes unaware of their inefficient strategy use. In her examination of the study strategies of successful and unsuccessful learners, Loranger (1994) found that the unsuccessful students were less apt to access strategies on their own and also lacked self-knowledge of inefficient strategy use. To explore this further, I reviewed Student A's performance on her exams. Her scores were as follows: Exam 1: 74%; Exam 2: 59%; Exam 3: 90%; Exam 4: 98%; Exam 5: 95%. This student showed significant improvement on her exam performance across the semester, with a considerable increase on the last two exams. I introduced the synthesis chart prior to Exam 4. This student earned a grade of A in the

course. Of course, I cannot say for certain that it was the organizing strategy (i.e., the synthesis chart) that helped to increase this student's performance on her exams. Perhaps some other variable(s) such as the nature of the content covered or student motivation could account for the change in performance, but this finding is encouraging. In fact, I noticed an overall increase in class performance on the last two exams. This led me to compare the final grades in this class with the final grades of the students in the same course for the previous semester in which I had not introduced the synthesis chart. My analysis found that the majority (72%) of the students in the class presented in this study earned an A, B+, or B as a final grade. In contrast, in the previous semester when I did not introduce students to the synthesis chart, only 39% of the students earned an A, B+, or B as a final grade. Though encouraging, additional research that controls or student factors other than strategy use would need to be conducted to help shed light on this finding.

Conclusion

As a result of this small case study and the positive feedback I have received from students on the use of this organizing strategy, I continue to use the synthesis chart and small group activity in my introductory psychology courses. I have found that the use of these synthesis charts help students to navigate difficult reading material and contributes to their academic success. Additionally, the use of this type of informal writing assignment offers the following pedagogical benefits:

1. Students who come to class having completed their synthesis charts for homework are prepared for that day's class session. Students can use their notes from their learning charts as a springboard from which they can engage in class discussion with, perhaps, greater confidence.

2. Many students, especially those who have many demands on their time, such as work and family, have limited to time to read and process course materials. These learning charts highlight or make transparent the important elements of the reading and help students to prioritize and focus their attention on relevant concepts and helps them to see connections across concepts.

3. In addition to helping students to learn how to take notes and organize the content in their reading in a coherent way, the completed synthesis charts can serve as study notes that students can use in preparing for their exams.

4. The charts can serve as a student assessment tool in that they reflect how students organize the relevant information in the chart and can reveal any confusions they may have. I am then able to give individualized feedback to students and to use this information to inform subsequent instruction.

Many students, especially those who enter college underprepared for the academic demands they will face in their classes can benefit from teachers being explicit in their instruction and guidance with regard to how to read difficult texts. The use of informal or exploratory writing assignments such as a synthesis chart can help students to become more effective readers of their college texts and help to promote students' academic success.

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Appendix A

A Synthesis Chart for Organizing Psychological Disorders

Category of Psychological Disorder	Specific Disorder	Symptoms
I. Anxiety Disorder		
	a. Generalized Disorder	
	b. Phobia	
	c. Obsessive-compulsive disorder	
II. Dissociative Disorders		
	a. Dissociative Amnesia	
	b. Dissociative Fugue	
	c. Dissociative Identity Disorder	
III. Mood Disorders		
	a. Major Depressive Disorder	
	b. Mania	
	c. Bipolar Disorder	

Appendix B

Examples of Clinical Cases Used for Diagnosing Psychological Disorders

1. William is haunted by uncontrollable thoughts that occur over and over again. These thoughts are usually about getting germs from everyday things such as doorknobs. As much as he tries he can't stop

thinking and worrying about germs. It gets to the point where William has to wash his hands 20 times a day and will not touch doorknobs with his bare hands.

2. Katherine has been feeling 'down in the dumps' for about six months. She experiences extreme sadness, has difficulty sleeping through the night, and feels guilty most of the time. She no longer has any interest in the activities that once gave her pleasure. She has also isolated herself from her friends and family.

Appendix C

Student Questionnaire on the Use of the Synthesis Chart

1. How helpful have you found the synthesis chart for your own learning of the course material? Briefly explain.
2. Briefly describe how you have used the chart (e.g., for organizing information, study guide, etc.).
3. Have you ever used this type of chart or learning tool before this class? If yes, for which courses?
4. After using the chart for this course, have you used this type of organizer for any of your other courses? If yes, which ones?
5. On a scale from 1-5 (see scale below), how likely are you to use this technique in the fall semester? Please explain.

Please circle one in response to question 5.

5=extremely likely

4=very likely

3=somewhat likely

2=not very likely

1=will not use it.